

REMARKS

Claims 1-20 are currently pending in the present application, with Claims 17-19 being allowed, and Claims 1-9, 13, 15-16, and 20 being amended. Reconsideration and reexamination of the claims are respectfully requested.

The Examiner objected to the disclosure due to various informalities. Applicant has amended the disclosure to correct the informalities.

The Examiner objected to Claims 3 and 13 due to certain informalities. Applicant has amended Claims 3 and 13 to correct the cited informalities.

The Examiner rejected Claims 1-16 and 20 under 35 U.S.C. § 102(b) as being anticipated by Hirota (U.S. Patent No. 5,366,421). This rejection is respectfully traversed with respect to the amended claims.

The present invention is directed to a differential system whereby a differential (such as differential housing 7A and 7B or differential 1A and 1B) is operative to be driven by a drive gear (such as 5A and 5B). A Clutch is operative to interconnect the drive gear and the differential. The use of a differential as described above reduces drive resistance and thereby increases fuel efficiency.

Hirota is directed to a differential apparatus that includes a differential housing 21 operative to be driven by a drive gear 29 (See Fig. 2 and Col. 3, lines 26-41). On the other hand, clutch 67, 55, and 79 is operative to interconnect side gears 39 and 41 via a main clutch 55 (See Figs. 3A and 3B, Col. 4, lines 23-45). Thus, drive gear 67 cannot drive the differential housing 21 or the differential 7, and clutch 55 and 79 does not interconnect with the drive gear 67 and differential housing 21, as recited by amended Claims 1 and 20. Accordingly, Applicant respectfully submits that amended Claims 1-20 are not anticipated by, nor obvious in view of, Hirota.

The Examiner objected to Claims 17-19 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant respectfully submit that, in view of the above

arguments that amended Claim 1 is in condition for allowance, Claims 17-19 are also in condition for allowance.

In view of the above, Applicant respectfully submits that all of the pending claims, as amended, are in condition for allowance. Reconsideration and reexamination of the claims are respectfully requested, and an early allowance is solicited. If the Examiner believes it would further advance the prosecution of the present application, she is respectfully requested to contact the undersigned attorney.


Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made**".

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 482782005700.

Respectfully submitted,

Dated: January 10, 2003

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

The specification has been amended in the following manner:

On Page 2, the paragraph beginning at line 11, ending at line 12, was amended in the following manner:

Preferably, the support member and the clutch system are axially arranged to each other.

On Page 2, the paragraph beginning at line 15, ending at line 19, was amended in the following manner:

Preferably, the clutch system includes a first clutch provided between the torque transmission member and the differential housing. The clutch system includes an actuator for operating the first clutch. The first clutch is located axially between the support member and the actuator.

On Page 3, the paragraph beginning at line 8 was amended in the following manner:

Preferably, the second clutch includes first clutch plates connected the torque transmission member, the first clutch plates being spaced from each other. The second clutch includes second clutch plates connected to the converter. Respective second clutch plates are slidably interposed between respective first clutch plates.

On page 5, the paragraph beginning at line 29 was amended in the following manner:

The width direction of the view of the vehicle using rear differential 1A in Fig. 1 corresponds with the view in [Fig.] Figs. 2 and 3. The members without reference characters omitted in [Figs] Figures.

On Page 9, the paragraph beginning at line 20 was amended in the following manner:

Pilot clutch 51A is located between clutch housing 23 and cam ring 65. Pilot clutch 51A has inner plate 51Aa and outer plates 51Ab to be slid against each other for frictional clutch. Inner plates 51Aa are spline linked to cam ring 65. Inner plates [51A] 51Aa extend radially outward from cam ring 65, being spaced at a predetermined distance. Outer plates 51Ab are spline linked to clutch housing 23. Outer plates 51Ab extend radially inward from housing 23, being interposed between inner plates 51Aa.

In the Claims:

Claims 1-9, 13, 15-16, and 20 have been amended in the following manner:

1. (Amended) A differential comprising:
a drive gear;
a differential housing[:] operative to be driven by the drive gear;
[a torque transmission member supported to the differential housing for rotating relative to the differential housing:] and
a clutch [system configured] operative to interconnect [between the torque transmission member] the drive gear and the differential housing [for transmitting a drive torque therebetween] with each other.
2. (Amended) A differential according to claim 1, further comprising:
a support member located between the torque transmission member and the differential housing[, the support member] for supporting the [torque transmission member] drive gear to the differential housing for relative rotation.
3. (Amended) A differential according to claim 2,
wherein the support member and the clutch [system] are axially arranged to each other.
4. (Amended) A differential according to claim 1,
wherein the [torque transmission member has a gear] drive gear is located in radial alignment with the support member.

5. (Amended) A differential according to claim 2,
wherein the clutch [system] comprises:
a first clutch provided between the [torque transmission member] drive gear and the
differential housing; and
an actuator for operating the first clutch,
wherein the first clutch is located axially between the support member and the actuator.

6. (Amended) A differential according to claim 2,
wherein the support member supports at least two points of the [torque transmission
member] drive gear.

7. (Amended) A differential according to claim 5,
wherein the [torque transmission member] drive gear axially has an end,
the actuator is located at the end, and
the first clutch is located axially back from the end.

8. (Amended) A differential according to claim 2,
wherein the support member is located in alignment with the clutch [system].

9. (Amended) A differential according to claim 5,

wherein the actuator comprises:

a second clutch for transmitting a drive torque from the [torque transmission member] drive gear; and

a converter provided between the first and second clutches for converting a drive torque to a thrust force and for engaging the first clutch.

13. (Amended) A differential according to claim 9,

wherein the second clutch comprises:

first clutch plates connected to the [torque transmission member] drive gear, the first clutch plates being spaced from each other; and

second plates connected to the converter, respective second clutch plates being frictionally and slidably interposed between respective first clutch plates.

15. (Amended) A differential according to claim 13,

wherein the second clutch plates are spaced radially from the [torque transmission member] drive gear.

16. (Amended) A differential according to claim 10,

wherein the electromagnet system further comprises:

an armature configured to be attracted for pressing and engaging with the second clutch, the armature being spaced radially from the [torque transmission member] drive gear.

20. (Amended) A differential system comprises:

a [transmission mechanism for transmitting a drive torque] reduction;

a drive gear operative to be driven by the reduction;

a differential operative to be driven by the drive gear;

[a torque transmission member being supported to the differential for rotating relative to the differential;] and

a clutch [system configured] operative to interconnect [between the torque transmission member] the drive gear and the differential with each other [for transmitting a drive torque between the transmission mechanism and the differential].